

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
20 January 2005 (20.01.2005)

PCT

(10) International Publication Number
WO 2005/006388 A3

(51) International Patent Classification⁷: **H01J 65/04**, I21S 8/00, 10/02, H05B 35/00, H01J 61/44

(21) International Application Number:
PCT/IB2004/051153

(22) International Filing Date: 7 July 2004 (07.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03102163.7 15 July 2003 (15.07.2003) EP

(71) Applicant (for DE only): **PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH [DE/DE]**; Stein-damm 94, 20099 Hamburg (DE).

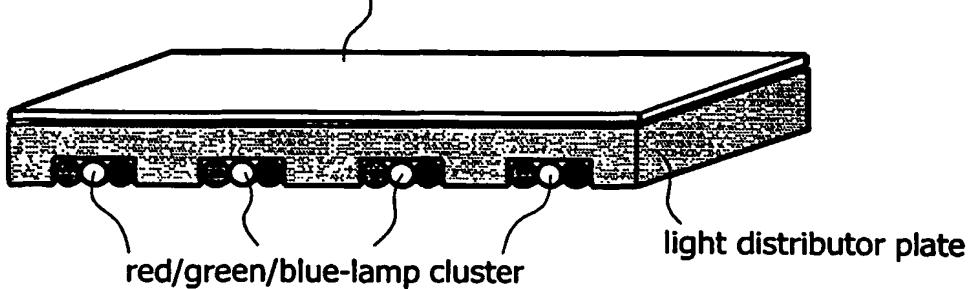
(71) Applicant (for all designated States except DE, US): **KONINKLIJKE PHILIPS ELECTRONICS N. V. [NL/NL]**; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **JÜSTEL, Thomas [DE/DE]**; c/o Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE). **BERTRAM, Dietrich [DE/DE]**; c/o Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE).

(54) Title: COLOUR TUNABLE LIGHTING ELEMENT

diffusor and uncoupling plate



WO 2005/006388 A3

(57) Abstract: A colour tunable lighting element is described, which comprises an assembly of dielectric barrier discharge lamps, each of them filled with a noble gas or a noble gas mixture, wherein a Xe low-pressure discharge generates invisible UV radiation, which is converted into visible light by one or several phosphors being coated onto the inner surface of the bulb, wherein the visible light of several dielectric barrier discharge lamps is mixed by optical means and is emitted homogeneously. Such an assembly of dielectric barrier discharge lamps is useful for the generation of white light with an arbitrary colour temperature and of saturated coloured light.